

ABSTRACT OF THE INVENTION

The invention provides compositions and methods for altering insulin secretion using an agent that inhibits calcium efflux via the mitochondrial calcium/ sodium antiporter (MCA). Methods of treatment are thereby provided, and are particularly useful for treatment of subjects having, or suspected of being at risk for having, diabetes mellitus. Compositions and methods related to the identification of gene sequences encoding the mitochondrial calcium/ sodium antiporter, expression of such sequences and screening assays using expressed MCA products are also provided.

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